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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,560	09/30/2003	Martin Mayr	DT-6638	5110

30377 7590 08/11/2004

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EXAMINER

OLIVA, CARMELO B

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AVY

Office Action Summary	Application No. 10/674,560	Applicant(s) MAYR ET AL.	
	Examiner Phuong T. Vu	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, it must be shown that actuation element is capable of pivoting within an angular region from 30 degrees to 180 degrees. No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 6 is objected to because it is not supported in the drawings or specification how the actuation element pivots within an angular region from 30 degrees to 180 degrees.
3. Claim 11 is objected to because it is unclear what is meant by "antiparallel oriented" in reference to the permanent magnets. Does "antiparallel oriented" mean that the magnets are not positioned parallel to one another? If this is the case, the drawings show that the magnets are positioned parallel to each other which does not support the recitation.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent Application No. 32 20 914 A1. Regarding claim 1, the reference discloses an electrical module assembly comprising a module housing having a compression-proof wall comprised of 46, 44 and an electrical module comprising 18, 16 located in the module housing and having an explosion-proof contactless switch including movable switching means comprising 28, 30, 33, 38 and an actuation element 42 for actuating the switching means from outside, and sensor electronics 22 for sensing movement of the switch means, the sensory

electronics being spatially separated from the switching means by a separation section of the wall of the module housing.

Regarding claim 2, the reference discloses an electrical module assembly according to claim 1, wherein the separation section forms pot-shaped pocket (see figure 2).

Regarding claim 3, the reference discloses an electrical module assembly according to claim 2, wherein the pot shaped pocket projects into an interior of the module housing.

Regarding claim 4, the pot-shaped pocket is formed as an axially symmetrical pocket.

Regarding claim 5, the actuation element is formed as a rotatable body.

Regarding claim 6, the actuation element appears to move in the same manner as the actuation element of the invention.

Regarding claim 7, in the configuration shown, it may be considered that the switching means is arranged adjacent to end surface of the actuation element associated with the pocket.

Regarding claim 8, the switching means is arranged radially outwardly of the end surface of the actuation means, and wherein the sensory electronics is arranged in the interior of the module housing on an outer surface of the pocket.

Regarding claim 9, the sensory electronics includes at least one Hall-sensor and wherein the switching means is formed as a permanent magnetic, a magnetic field of which is associated with the Hall-sensor.

Regarding claim 10, the Hall-sensor is formed as differential Hall-sensor which may be considered to be slightly offset in the vertical direction relative to the permanent magnet in an actuation direction of the permanent magnet.

Regarding claim 11, the switching means is formed by two oppositely oriented permanent magnets 30, 33 and wherein the sensory electronics includes two Hall-sensors (one provided in 10 and one provided in 12) associated with respective permanent magnets (provided in 10 and 12 respectively).

Regarding claim 12, it appears the Hall-sensors are connected in series.

6. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent 195 14 708 C1. Regarding claim 1, the reference discloses an electrical module assembly comprising a module housing 1 having a compression-proof wall and an electrical module 9 located in the module housing and having an explosion-proof contactless switch including movable switching means 7a₁, 7a₂ and an actuation element 3a₁, 3a₂ for actuating the switching means from outside, and sensor electronics 8a₁', 8a₁", 8a₂', 8a₂" for sensing movement of the switch means, the sensory electronics being spatially separated from the switching means by a separation section of the wall 1a of the module housing.

Regarding claim 2, the reference discloses an electrical module assembly according to claim 1, wherein the separation section forms pot-shaped pocket (see figures 1-2).

Art Unit: 2841

Regarding claim 3, the reference discloses an electrical module assembly according to claim 2, wherein the pot shaped pocket projects into an interior of the module housing.

Regarding claim 4, the pot-shaped pocket is formed as an axially symmetrical pocket (see figure 3).

Regarding claim 5, the actuation element is formed as a rotatable body.

Regarding claim 6, the actuation element appears to move in the same manner as the actuation element of the invention.

Regarding claim 7, in the configuration shown, it may be considered that the switching means is arranged adjacent to end surface of the actuation element associated with the pocket.

Regarding claim 8, the switching means is arranged radially outwardly of the end surface of the actuation means, and wherein the sensory electronics is arranged in the interior of the module housing on an outer surface of the pocket.

Regarding claim 9, the sensory electronics includes at least one Hall-sensor and wherein the switching means is formed as a permanent magnetic, a magnetic field of which is associated with the Hall-sensor.

Regarding claim 10, the Hall-sensor is formed as differential Hall-sensor which may be considered to be slightly offset in the vertical direction relative to the permanent magnet in an actuation direction of the permanent magnet.

Regarding claim 11, the switching means is formed by two oppositely oriented permanent magnets and wherein the sensory electronics includes two Hall-sensors associated with respective permanent magnets.

Regarding claim 12, it appears the Hall-sensors are connected in series.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent Application No. 32 20 914 A1. Regarding claim 13, the reference is silent about the composition of the module housing. However, it would have been obvious to those skilled in the art at the time the invention was made that the housing should be formed of a non-ferromagnetic material, which does not have any magnetic properties, so that there is no magnetic interference with operation of the switching means due to the composition of the housing.

Regarding claim 14, it would have been furthermore obvious to use an aluminum alloy as this material is rigid and provides structural strength without affecting the magnetic field of the switching means.

9. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent No. 195 14 708 C1. Regarding claim 13, the reference is silent about the composition of the module housing. However, it would have been obvious to those skilled in the art at the time the invention was made that the housing should be formed of a non-ferromagnetic material, which does not

Art Unit: 2841


have any magnetic properties, so that there is no magnetic interference with operation of the switching means due to the composition of the housing.

Regarding claim 14, it would have been furthermore obvious to use an aluminum alloy as this material is rigid and provides structural strength without affecting the magnetic field of the switching means.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong T. Vu whose telephone number is (571) 272-2111. The examiner can normally be reached on Mon. & Tues., 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S. Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



7/27/04